

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

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In the Matter of:

APPLICATION OF CHRISTIAN COUNTY	)	
WATER DISTRICT, OF CHRISTIAN	)	
COUNTY, KENTUCKY, FOR (1) A	)	
CERTIFICATE OF PUBLIC CONVENIENCE	)	
AND NECESSITY, PERMITTING SAID	)	
DISTRICT TO CONSTRUCT A WATER WORKS	)	
CONSTRUCTION PROJECT, CONSISTING	)	
OF EXTENSIONS, ADDITIONS, AND	)	
IMPROVEMENTS TO THE EXISTING	)	
WATERWORKS SYSTEM OF THE DISTRICT;	)	CASE NO. 8664
(2) APPROVAL OF THE PROPOSED PLAN	)	
OF FINANCING OF SAID PROJECT; AND	)	
(3) APPROVAL OF THE INCREASED WATER	)	
RATES PROPOSED TO BE CHARGED BY	)	
THE DISTRICT TO CUSTOMERS OF THE	)	
DISTRICT	)	

O R D E R

On September 27, 1982, Christian County Water District ("Christian County") filed an application with this Commission, seeking a certificate of public convenience and necessity authorizing the construction of major improvements and extensions to its water distribution system; approval of the adjustment of its water service rates and charges; and approval of the financing of said major improvements. An Interim Order issued on April 28, 1983, authorized the proposed construction and financing. This Order addresses Christian County's request for an increase in rates.

The construction plan submitted by Christian County and approved by the Commission in the Interim Order is to extend service to 237 new customers at an estimated cost of \$1,257,200. The project will be financed through a \$410,000 loan and a \$796,000 grant from Farmers Home Administration ("FmHA") together with \$51,200 from tap-on fees from customers. The loan repayment period is to be 40 years at an interest rate of 11 3/8 percent per annum.

The rates proposed by Christian County would produce additional annual revenues of \$83,115, an increase of 34 percent. Based on the determination herein, the annual revenues of Christian County will increase by \$58,528, an increase of 23 percent.

A public hearing in this matter was held on April 5, 1983. There was no intervenors and no protests were entered.

#### COMMENTARY

Christian County is a nonprofit water distribution system organized and existing under the laws of the Commonwealth of Kentucky and presently serves approximately 920 customers in Christian County, Kentucky.

#### TEST PERIOD

The Commission has adopted the 12-month period ending June 30, 1982, as the test period for determining the reasonableness of the proposed rates. In utilizing the historical test period, the Commission has given full consideration to known and measurable changes found reasonable.

## REVENUES AND EXPENSES

Christian County proposed several adjustments to revenues and expenses in its original application. The Commission is of the opinion that the proposed adjustments are generally proper and acceptable for rate-making purposes with the following modifications:

### Operating Revenue

In determining its normalized revenue, Christian County applied the new rates requested in this case to an estimated average monthly water consumption of 4,000 gallons per customer for the new customers to be added. The Commission has determined Christian County's normalized revenue based upon the rates in effect at the end of the test period and the 4,000 gallon monthly usage proposed by Christian County. Therefore, the Commission has increased Christian County's actual test year operating revenue by \$43,768 to reflect the additional revenue from the new customers.

### Purchased Water Expense

Christian County proposed an adjustment to increase its purchased water expense by \$12,654, of which \$1,392 represents wholesale price increases from its water suppliers and \$11,262 represents the estimated purchased water cost associated with sales to the 237 new customers. In determining the purchased water cost allowed herein for rate-making purposes the Commission has used an average

monthly usage of 4,000 gallons for the new customers and applied the current rates in effect from its suppliers. The Commission is of the opinion and finds that 15 percent is the maximum line loss allowable as a rate-making expense. Therefore Christian County's purchased water expense has been adjusted to eliminate the cost associated with line loss in excess of 15 percent. The Commission has therefore determined Christian County's pro forma purchased water expense to be \$83,539.

#### Billing Expense

Christian County proposed an adjustment of \$578 to reflect the additional computer billing charges associated with the new customers. In calculating the proposed adjustment Christian County failed to include an increase in billing charges imposed during the test year by the firm providing this service. In calculating Christian County's billing expense the Commission has included the increase in the billing charge as well as the additional expense associated with the new customers. This results in an adjustment to billing expense of \$804.

#### Depreciation Expense

The operating statement of Christian County for the test period reflected depreciation expense of \$38,970. In addition, Christian County proposed to increase depreciation expense by \$12,300 based upon a composite depreciation rate

of 3 percent on the new construction to be financed by a \$410,000 loan. The Commission has reviewed the depreciation rate of 3 percent proposed by Christian County for the new construction project and in view of the lack of support provided for the proposed rate, is of the opinion that the composite rate of 2.4 percent used by Christian County during the test year is the most reasonable rate to be used for the new project. Therefore, the Commission has utilized the test period composite depreciation rate of 2.4 percent in determining the pro forma depreciation expense for the new construction.

It is the policy of the Commission to compute depreciation expense for rate-making purposes on the basis of the net original cost of plant in service less contributions in aid of construction. Christian County's balance sheet reflects contributions in aid of construction of \$777,180 at the end of the test year, which is approximately 48 percent of the total cost of utility plant in service. In determining the pro forma depreciation expense the Commission has utilized the level of plant in service at the end of the test year including the construction approved herein, less contributions in aid of construction, and the test year composite depreciation rate of 2.4 percent. This results in an allowable annual straight line depreciation expense of \$30,203.

### Electric Expense

Christian County proposed an adjustment to increase its electric expense by \$3,413. Christian County calculated this adjustment by dividing the test period electric expense by the number of gallons of water sold to arrive at a cost per thousand gallons sold. This cost was then multiplied by the number of gallons expected to be sold to the new customers to arrive at the proposed adjustment.

This method of calculating the adjustment does not consider the new electric consuming equipment to be added in the construction. Christian County has failed to prove that there is a direct relationship between water sales and electric expense. The Commission has recalculated the pro forma electric expense by utilizing the estimated KWH usage of the new equipment to be installed in the project and applying the cost per KWH to the usage to arrive at the estimated electric usage of the new equipment. The method results in additional electric expense of \$1,367 allowed herein for rate-making purposes.

The Commission finds that Christian County's adjusted test period operations are as follows:

	<u>Actual Test Period</u>	<u>Pro Forma Adjustments</u>	<u>Adjusted Test Period</u>
Operating Revenues	<u>\$198,010</u>	<u>\$ 43,768</u>	<u>\$241,778</u>
Operating Expenses	<u>184,561</u>	<u>14,835</u>	<u>199,396</u>
Operating Income	\$ 13,449	\$ 28,933	\$ 42,382
Other Income	10,965	-0-	10,965
Other Deductions	<u>41,875</u>	<u>46,225</u>	<u>88,100</u>
Net Income	<u>\$(17,461)</u>	<u>\$(17,292)</u>	<u>\$(34,753)</u>

#### REVENUE REQUIREMENTS

The Commission is of the opinion that the adjusted test period operating loss is clearly unjust and unreasonable. Christian County's proposed rates were designed to produce revenues sufficient to cover operating expenses and provide a 1.2X debt service coverage. However, in calculating its revenue requirements Christian County incorrectly determined its annual principal payment to be \$17,000 annually. The amortization schedule of the 1976 and 1983 bonds provided by Christian County indicates an annual principal requirement of \$9,000, which the Commission has used in determining Christian County's debt service requirements. The Commission finds the debt service coverage method to be a fair, just and reasonable method of determining revenue requirements in this case and adequate to

allow Christian County to pay its operating expenses, meet its debt service requirements and maintain a reasonable surplus. The Commission finds Christian County's revenue requirement to be \$311,271 which will require additional revenues of \$58,528 annually.

#### RATE DESIGN

Christian County included in its billing analysis billing information on Pennyrile State Park ("Pennyrile"), which is the only customer served on a 4-inch meter. Pennyrile has been served under a tariff provision that reads as follows: "Customer shall pay the District's standard water rate schedule, as shown above, or a minimum of \$100.00 per month." Examination of billing information shows that Christian County has charged Pennyrile a minimum bill of \$100 plus usage, and that Pennyrile's minimum bill should be considerably more than \$100. Indeed, charging Pennyrile a minimum bill of \$100 is a misapplication of Christian County's tariff.

Christian County's cost of water at its Hopkinsville distribution point is \$0.99 per 1,000 gallons. Christian County has charged Pennyrile a minimum bill equivalent to \$1.00 per 1,000 gallons. In contrast, the minimum bill in the most comparable customer class is equivalent to \$2.08 per 1,000 gallons.

The Commission considers Christian County's rate schedule for 4-inch meter service unreasonable and inconsistent with its overall rate design. Therefore, the Commission has accorded to 4-inch meter service rate treatment consistent with that applied to other rate schedules.

SUMMARY

The Commission, after consideration of the evidence of record and being advised, is of the opinion and finds that:

1. The rates in Appendix A are the fair, just and reasonable rates for Christian County in that they will produce gross annual revenue of \$311,271. These revenues will be sufficient to meet Christian County's operating expenses found reasonable for rate-making purposes, service its debt and provide a reasonable surplus.

2. The rates proposed by Christian County would produce revenue in excess of that found reasonable herein and should be denied.

IT IS THEREFORE ORDERED that the rates in Appendix A be and they hereby are approved as the fair, just and reasonable rates to be charged by Christian County for service rendered on and after the date of this Order.

IT IS FURTHER ORDERED that the rates proposed by Christian County be and they hereby are denied.

IT IS FURTHER ORDERED that within 30 days of the date of the Order Christian County shall file its revised tariff sheets setting forth the rates approved herein.

Done at Frankfort, Kentucky, this 26th day of July, 1983.

PUBLIC SERVICE COMMISSION

  
Chairman

  
Vice Chairman

  
Commissioner

ATTEST:

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Secretary

## APPENDIX A

### APPENDIX TO AN ORDER OF THE PUBLIC SERVICE COMMISSION IN CASE NO 8664 DATED JULY 26, 1983

The following rates are prescribed for the customers served by the Christian County Water District. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under authority of the Commission prior to the date of this Order.

#### MONTHLY RATES

##### 5/8 - Inch Meters

First 1,000 gallons	\$8.89 (Minimum Bill)
Next 4,000 gallons	3.39 per 1,000 gallons
Next 5,000 gallons	3.14 per 1,000 gallons
Next 10,000 gallons	2.89 per 1,000 gallons
Over 20,000 gallons	2.64 per 1,000 gallons

##### 3/4 - Inch Meters

First 3,000 gallons	\$15.67 (Minimum Bill)
Next 2,000 gallons	3.39 per 1,000 gallons
Next 5,000 gallons	3.14 per 1,000 gallons
Next 10,000 gallons	2.89 per 1,000 gallons
Over 20,000 gallons	2.64 per 1,000 gallons

##### 1 - Inch Meters

First 5,000 gallons	\$22.45 (Minimum Bill)
Next 5,000 gallons	3.14 per 1,000 gallons
Next 10,000 gallons	2.89 per 1,000 gallons
Over 20,000 gallons	2.64 per 1,000 gallons

##### 1 1/2 - Inch Meters

First 10,000 gallons	\$38.15 (Minimum Bill)
Next 10,000 gallons	2.89 per 1,000 gallons
Over 20,000 gallons	2.65 per 1,000 gallons

2 - Inch Meters

First 50,000 gallons  
Over 50,000 gallons

\$146.25 (Minimum Bill)  
2.64 per 1,000 gallons

4 - Inch Meters

First 100,000 gallons  
Over 100,000 gallons

\$278.25 (Minimum Bill)  
2.64 per 1,000 gallons